

CLAIMS:

1. A catheter comprising:

a catheter shaft and a distal tip, the distal tip having a proximal end and a distal end, the
5 distal tip having an inner surface and an outer surface, and in a longitudinal cross-
sectional profile view of the distal tip, the inner surface curves towards the outer surface
at the distal end.

2. The catheter of claim 1, the outer surface curves towards the inner surface at the
distal tip, or the outer surface remains substantially unchanged at the distal tip.

10 3. The catheter of claim 1, the inner surface having a first circumference at the distal tip
and a second circumference proximal the distal tip, wherein the first circumference at
the distal tip is at least 10% larger than the second circumference proximal the distal tip.

4. The catheter of claim 1 wherein the distal tip is formed from at least one member
selected from the group consisting of polyolefins, polyamides, polyurethanes,
15 polyimides, polyesters, silicones, rubbery block copolymers, latex, copolymers thereof
and mixtures thereof.

5. The catheter of claim 1 wherein the distal tip is formed from a block copolymer.

6. The catheter of claim 1 wherein said distal tip is formed of a polymeric material
which is softer than said polymeric material from which said catheter shaft is formed as
20 measured by a Shore Durometer scale.

7. The catheter of claim 1 wherein said distal tip is formed from a polymeric material
which has a hardness which is equal to or greater than the polymeric material from
which the catheter shaft is formed as measured by a Shore Durometer scale.

8. The catheter of claim 1 wherein the curvature of the outer surface substantially
25 mirrors the curvature of the inner surface.

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10. A method of manufacturing a catheter shaft having a distal tip, the distal tip having an inner surface and an outer surface, the method comprising the steps of:
- providing said catheter shaft and said distal tip; and
 - rounding the inner surface of the distal tip such that the circumference of the
- 5 inner surface increases in a longitudinal direction toward the distal tip.
11. The method of claim 10 further comprising the step of rounding the outer surface of the distal tip.
12. The method of claim 10 wherein the rounding step comprises laser ablation of material from the surface.
- 10 13. The method of claim 12 wherein said laser is an ultraviolet laser.
14. The method of claim 12 wherein said laser produces UV radiation having a wavelength of about 450 nm or less.
15. The method of claim 12 wherein said laser produces UV radiation having a wavelength of about 351 nm or less.
- 15 16. The method of claim 10 wherein the distal tip is integral with said catheter shaft.
17. The method of claim 10 wherein the distal tip is formed separately from said catheter shaft and the method further comprises the steps of disposing the distal tip on the catheter shaft.